

REMARKS

Claims 1-23 and 40-79 are currently pending in the subject application and are presently under consideration. Claim 23 has been amended as shown on p. 5 of the Reply.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claim 23 Under 35 U.S.C. §101

Claim 23 stands rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Claim 23 has been amended to recite embodiment on a computer readable storage medium, which falls within the classes of statutory subject matter. Withdrawal of this rejection is requested.

II. Rejection of Claims 1-23 and 40-79 Under 35 U.S.C. §102(e)

Claims 1-23 and 40-79 stand rejected under 35 U.S.C. §102(e) as being anticipated by Dantu, *et al.* (U.S. Pat. 6,904,286, hereinafter Dantu). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Dantu does not disclose each element as set forth in the above claims.

For a prior art reference to anticipate, 35 U.S.C. §102 requires that "each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999) (*quoting Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)).

The subject claimed invention relates to combining grant, acknowledgement and rate control channels in a wireless communications environment. In particular, independent claim 1 (and analogously independent claims 10, 19, 20, 21 and 22) recites an apparatus, which employs a message generator for both *generating a first message comprising an acknowledgement indicator and a rate control indicator and generating a second message conditioned on the rate control indicator*. The second message is dependent on characteristics of the first message; specifically, it is *conditioned on the rate control indicator*, which is an element of the first message.

Dantu provides a system and a method for wireless traffic flow management, which controls the source transmit rate *via* a feedback message that is generated by a mobile device and shaped based on the power indicator for the wireless link. As such, Dantu does not disclose, teach, or suggest the elements within the subject claims as mentioned above. Dantu teaches an acknowledgement feedback message in *a single message*. See Fig. 2 (110) and description in Col. 5, lines 18-21. Nowhere does Dantu teach a *second message* that is *conditioned on the rate control indicator* that is a part of the first message.

In paragraph 4, the Examiner asserts that the feedback rate control messages that the acknowledgement shapers receive from the mobile device, as Dantu teaches in col. 5, lines 15-30, are “feedback messages generated by the mobile device or other suitable endpoint and provided to the source endpoint for adjustment of the transmission rate.” In this sense, Dantu may teach a first message that contains an acknowledgement-indicator and a rate control indicator. However, Dantu does not teach *a second message* that is *conditioned on the rate control indicator* that is part of the first message.

Also in paragraph 4, the Examiner cites col. 8, lines 50-65, in which Dantu describes the decisional step as represented in Fig. 6 (238). The examiner incorrectly asserts that “additional traffic” that “remains to be transmitted for the flow” by the decisional step constitutes “second, third . . . messages.” In the sense of the current application, a “second message” is a message that is *conditioned on the rate control indicator* that is part of the first message. In the passage the Examiner has cited, the “second, third . . . messages” are equivalent to multiple cycles of the current application’s “first message.”

Furthermore, the Examiner incorrectly asserts in paragraph 9 that Dantu, col. 5, lines 18-32 (as quoted *supra*) teaches a *second message* that is *conditioned on the rate control indicator*. The cited passage states, “The **rate control messages** are feedback messages generated by the mobile device or other suitable end point and provided to the source end point for adjustment of transmission rate.” Dantu, col. 5, lines 18-21. In lines 22-30, the cited passage presents embodiments of types of rate control messages consistent with the definition in lines 18-21. Col. 5, lines 18-32 clearly define the feedback messages as part of the first message – not a *second message* that is *conditioned on the rate control indicator* that is part of the first message.

With respect to independent claim 6 (and analogously independent claims 23, 40, 41, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63 and 64), which claims an apparatus that contains a message

generator for generating a first signal comprising one of a first plurality of values, each value associated with an acknowledgement (ACK) or negative acknowledgement (NAK), and one or more of the values indicating a rate control command; and conditionally generating a second signal comprising one of a second plurality of values corresponding to a respective plurality of rate control commands when the value of the first signal indicates a rate control command. For the reasons described, *supra*, Dantu does not teach or suggest *conditionally generating a second signal* based on the first signal.

Additionally, with respect to independent claim 6 (and analogously independent claims 23, 40, 41, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63 and 64), Dantu does not teach or suggest *a first signal comprising one of a first plurality of values, each value associated with an acknowledgement or negative acknowledgement and one or more of the values indicating a rate control command*. Dantu teaches, a “rate control message [comprising] TCP packet acknowledgement feedback messages,” which comprise, “an acknowledgement for sequence number and a transmit window size sent by the mobile device.” Col. 5, lines 20-26. Nowhere does Dantu teach or describe *an acknowledgement or negative acknowledgement and one or more of the values indicating a rate control command*.

Further, claim 2, which depends on independent claim 1, recites a *second message* that *comprises a rate control command*. As described *supra*, Dantu does not teach or suggest a *second message*. Furthermore, Dantu does not teach or suggest a *second message that comprises a rate control command*. Dantu teaches only rate control messages, not rate control commands *in a second message conditioned on a rate control indicator* that is part of a first message. At paragraph 4, the Examiner erroneously asserts that “Dantu’s ‘rate control message’ is equivalent to ‘rate control indicator.’” This analysis is incorrect because Dantu does not teach or suggest *a second message that comprises a rate control command*. Fig. 2 (88), as cited by the Examiner, does not correspond to *a second message that comprises a rate control command*. Dantu only discloses a first message as described *supra*.

In view of at least the foregoing, it is readily apparent that Dantu fails to teach or suggest all limitations of the subject claimed invention as recited in independent claims 1, 6, 10, 19, 20, 21, 22, 23, 40, 41, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63 and 64 (and their respective dependent claims). Accordingly, it is respectfully requested that this rejection be withdrawn.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 17-0026.

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

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